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COMMONWEALTH of VIRGINIA

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

DEPARTMENT OF ENVIRONMENTAL QUALITY
Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 10009, Richmond, Virginia 23240
Fax (804) 698-4500 TDD (804) 698-4021
http://www.deq.state.va.us

Dennis H. Treacy
Director

(804) 698-4000
1-800-592-5482

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Commander
Atlantic Division
Naval Facilities Engineering Command
1510 Gilbert Street (Building N-26)
Norfolk, Virginia 23511-2699

Attn..: Mr. T. A. Reisch, IRP
Code 1822

RE: St. Juliens Creek Annex, Chesapeake, VA
Supplemental Field Investigation Plan, Landfill C (Site 3) and Landfill D (Site 4)
Dated July, 1998

Dear Mr. Reisch:

Thank you for the opportunity to review and comment on the above referenced document.

The comments below relate only to the referenced supplemental document and not to the previously reviewed RI/FS workplan document dated May, 1997, except where specifically noted. The comments are more or less organized in order of appearance in the plan and apply to the plan as a whole unless a specific section is referenced.

1. Page 4, Section 3.3.1, Third Paragraph
It is not clear from the description provided, what activities are to take place.

The road crossing the landfill is approximately 600 feet long, assuming the boundaries of the landfill as indicated by Figure 4-1 are correct. Please locate the proposed 50 foot long test lines on a figure or describe the decision making process to be used to select the "DPT line positioning" in the field. Is there any

indication of the orientation of the trenches in the landfill? Was all of the waste placed in trenches or was some spread, disposed of in a pit, or placed in "blocks"? Was there any cover placed on this landfill? How deep is it?

Two "aliquots" of soil are being collected from each boring. Does this mean that one split spoon sample will be obtained to a depth just short of groundwater and that the sample will be divided in half lengthwise, with one half of the sample being retained and the other being field tested? Please describe the means to collect the field test sample from the soil boring core. Will discrete layers be tested? Will compositing be performed? Was the intent to state that discrete vertical sections of the core sample will be identified visually in the field and the tested individually using a PID or other similar instrumentation. Please describe these procedures in detail being specific as to the decision making and sampling process and the field analytical procedures.

I am not familiar with a procedure for a "semiquantitative immunoassay" test kit to test for TPH. Are we concerned with biologicals? Please provide additional information regarding this field test procedure / equipment.

Describe the decision making process to select the 4 samples to receive "full analysis".

Please describe the sampling procedure for the samples to receive "full analysis" and identify exactly what is "full analysis". Reference to "as described below" refers to samples from 0 to 2 feet bgs. It does not appear to apply to this situation.

2. Page 4, Section 3.3.2, Second Paragraph
What happened to the 40 soil borings described in section 3.3.1?

Please describe the procedure to be followed in testing using the PID. Will the entire length of all soil boring cores be tested? Will sections be tested in the vapor space of a sealed jar at (4, 6, 12 inch ?) intervals using the PID after the initial "sniff test" along the length of the core?

Section 3.3.1 states that soil borings will not extend into groundwater and Section 3.3.2 states that soil borings will extend to groundwater. Please describe the method being used to seal the borings so that an additional channel is not created for contaminants to enter groundwater. By-the-way, what is the depth to groundwater in the vicinity of Landfill C?

Please provide documentation to justify the selection of 0.25 to 2.0 ft. bgs. to be sampled for use in the BERA for burrowing animals. Some burrowing animals will go as deep as 7 feet, and it is common for a groundhog or rabbit to have burrows deeper than 2 feet.

3. Page 7, Section 3.3.3
Please provide documentation to justify the selection of the top 3" of soil instead of the top 6" of soil to be sampled for the HHRA. Most gardens are tilled to depths exceeding 6 inches.

4. Page 7, Section 3.3.4
Please indicate which wells were located in a perched water table. Please discuss how the determination was made that these wells are or could be located in a perched water table.

It would be helpful to have an 11 X 17 fold out diagram that had both Site 3 and Site 4 as well as the sampling and proposed sampling locations identified.

Is sufficient data available to determine groundwater flow direction of the Yorktown aquifer?

5. Page 7, Section 3.3.4
Though not absolutely required, I would appreciate being consulted regarding any field changes in sampling and monitoring well locations prior to it occurring. It is understood that I may not always be available via telephone or on site; however, please at least leave a message on the voice mail along with a cell phone number where you can be reached.

6. Whole Document
Please refer to the operating manual and sample testing procedures for all instrumentation used in the field such as the Horiba U-10 Water Quality meter. Another option would be to describe the procedures in the text or in an appendix of the document. For equipment such as the Horiba, include a copy of the relevant sections of the manuals or your customized procedures in the work plan.

7. Page 8, Section 3.4.1
Why are subsurface soil samples being collected from around the perimeter of the landfill for the ecological risk assessment? The whole purpose is to determine the

risk from the contaminated area, not areas which may only have been impacted due to waste migration.

Again, I question the selection of 2 feet as the depth for burrowing animals. Please provide documentation supporting your choice of sample depth.

8. Whole Document
Please describe, in detail, the PID meter scanning procedure and subsequent decision making process. What is a high screening reading? I suggest that any screening reading above ambient should be considered a "hit".

9. Page 8, Section 3.4.2
Why are surface soil samples being collected from around the perimeter of the landfill for the human health risk assessment? The whole purpose is to determine the risk from the contaminated area, not areas which may only have been impacted due to waste migration.

Please indicate the proposed sampling locations on a combined Site 3 & 4 map which shows all sampling locations, including those to characterize the dredge spoil material that predominates in the area.

10. General
Samples used to determine the extent of the landfill boundaries and possible migration may be used to provide data for a model, but, are not suitable for either an ecological, or human health based risk assessment on-site. Models used to project contaminant concentrations throughout the life of the contaminants, can be used in the risk assessments. The intended use of the data is not always clear in the descriptions of the sampling point selection and associated text.

11. Please provide a detailed description of the slug testing procedure to test for hydraulic conductivity.

12. Page 11, Section 3.5
In order to obtain comparable data, please describe what measures are being taken to account for tidal differences between this sampling round and prior groundwater / surface water sampling round(s).

13. General
How much time (minimum) will be allowed between well construction, well development, well slug testing, well tidal variation testing and well sampling.

14. Reference to the Main Body Workplan for the RI May 1997
There have been updates to the EPA Risk Assessment guidance documents as well as to the various ecological and human health risk screening tables. The RI Work Plan references a specific version of these documents. Please note, that for the final RI report, the most current revisions must be used.

In order to expedite the final review process, I suggest a face to face or teleconference to discuss the items and the proposed responses. It would create an unnecessary delay if additional comments needed to be made on the response. Certain sections of the plan are sufficiently unclear as to intent and content that a second set of comments should be anticipated.

If you have any questions or to set up a conference, pleases contact me at the numbers below.

Very truly,

Sharon Skutle Wilcox

Sharon Skutle Wilcox, CHMM
Environmental Engineer, Sr.
804-698-4143
804-698-4383 fax
sswilcox@deq.state.va.us

CC: Rob Thompson, Region III, EPA
file: - 1998 - St. Julien's Creek- Sites 3 & 4
Durwood Willis